

Appendix B

Analysis of the Environmental Effects of Allowing Vehicles to Leave Designated Routes for the Purposes of Dispersed Camping – 100 feet versus 300 feet

A. Introduction

Under the 2005 Travel Management Rule, each Forest was given the discretion to allow motor vehicles to leave designated roads for the purposes of dispersed camping.

The Colville National Forest signed and adopted its Motor Vehicle Use Map (MVUM) in 2008. The Colville National Forest MVUM allows access to dispersed campsites within 300 feet of designated routes. In 2010 the MVUM was modified to allow parking off of roads for a distance of 30 feet. The sidebar shows the text from the Motor Vehicle Use Map.

All other cross-country travel is prohibited.

B. Existing Conditions

An analysis of off-road travel was conducted for this project (described in more detail in Chapter 3). Off-road travel cells are coded as Category 2 and Category 3. About 3% of the cells in the planning area were coded for off-road travel. Of those cells:

- About 60% of the cells were characterized as ‘play areas’, and
- About 30% were characterized as ‘connectors’, and
- About 10% are challenge areas and trails to specific features.

Some of the off-road travel is by highway vehicles, estimated at about 10%. The primary reasons highway vehicles leave designated roadways is for firewood cutting, huckleberry picking, and dispersed camping.

The proposed action (Alternative 3) would prohibit travel off of selected roadways (see Chapter 2 and Appendix A). Along those roadways dispersed campsites would be designated, and the routes to the campsites would be designated. This is an analysis of campsites and the potential to develop new campsites in the areas where campsites WOULD NOT be designated, in the zone between 100 feet and 300 feet of open roads.

2011 MVUM

DISPERSED CAMPING

Motor vehicle use off of designated roads and trails for the purpose of dispersed camping is permitted for up to 300 feet from the centerline of the road or trail.

PARKING

Motor vehicles may be parked up to 30 feet from the edge of the road surface when it is safe to do so without causing damage to NFS resources or facilities, unless prohibited by state law, a traffic sign, or an order (36 CFR 261.54.)

Table 1. NFS Lands adjacent open unrestricted roads

	w/in 100 feet		w/in 300 feet	
	Acres	% of PA ¹	Acres	% of PA
Open Roads with unrestricted camping	8,590	6%	24,360	16%
- Slopes suitable for dispersed camping ²	2,080	1%	5,860	4%
- Reasonably accessible from the roadway	2,070	1%	5,500	4%
Existing campsites	39 campsites		49 campsites	
Estimated acres	53		112	

Each of the campsites between 100 and 300 feet from an open road were reviewed to identify the reason they are used and to help identify if other similar areas likely to be used in the future.

Table 2. Setting for existing campsites between 100-300 feet from open roads

General Area	Road Number	Distance to Road	Setting
Ruby	2489	150	Near creek. Well established campsite on an old road that ends at the creek. There is no evidence that this spur road was ever closed (no berm, etc.).
NF Calispell	4347	150	Homestead meadow. The campsite is located at the end of the meadow farthest from the road. This appears to be a user created route to the campsite.
Bayley Lake overlook	9522000	150	Vista. Spur road that extends to a canyon break. Not extensively used for camping – mostly used for sightseeing. There is no evidence that this spur road was ever closed (no berm, etc.).
Tenmile Creek	4300166	200	Near creek. Well established campsite on an old road that ends at the creek. There is no evidence that this spur road was ever closed (no berm, etc.).
Brewer Mtn	9521030	200	Homestead meadow. The road goes through the meadow, and the campsite is located on the edge of the meadow. This is more clearly a user created route to the campsite.
Rankin	2600441	250	Near wetland. The campsite is seldom used. Access is via a spur road that is little used and nearly grown-in.
Schutter Mdw	9522170	250	Homestead meadow. Well established campsite along the edge of a meadow. The road skirts the meadow at one corner, and the campsite is located along another edge. There is no evidence that this spur road was ever closed (no berm, etc.).
McDonald Mtn	9521100	250	Homestead meadow. The road ends at the edge of the meadow, and the campsite is located at the other end of the meadow. There are no markers indicating the road ends prior to the campsite.
Leslie Creek	3647	300	Homestead meadow. The road goes along the west side of the meadow, and the campsite is located on the south side of the meadow. Well established spur road accesses the well established campsite. There is no evidence that this spur road was ever closed (no berm, etc.).
Bayley Creek	9545345	300	Landing. Spur road that leads to a landing used as a campsite. Light use, primarily hunting. There is no evidence that this spur road was ever closed (no berm, etc.).

¹ PA = planning area

² Dispersed camping occurs on flat slopes – typically 0-5%. Using a Digital Elevation Model (DEM), Geographic Information System (GIS) identified areas where slopes are less than 15%. About 20% of the planning area has 0-15% slopes. Hereafter, slopes less than 15% are called “flat ground”.

Common features that draw people to establish campsites that are more than 100 feet from the open roads include:

- Open meadows where they can see the camping opportunity from the road, and
- Spur roads that have not been closed, are not on the MVUM, and are adjacent to water.

C. Environmental consequences

POTENTIAL TO DEVELOP NEW SITES

Many locations that provide a high quality dispersed camping experience within 300 feet of open roads have already been developed. New campsites that the public may create would probably provide a lower quality camping experience.

Meadows

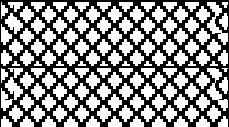

Most meadow campsites are located in “Homestead Meadows”, grassy openings created or enlarged by homesteading activity prior to 1940. These meadows are generally located along open roads. The meadows range in size from less than 0.3 acres to more than 70 acres (Woodward Meadows) – most are less than 5 acres.

Meadow campsites are typically located along the edges – not in the center. The campsites need to be dry, at least in the summer. A preferred location is on the edge of the meadow adjacent a creek.

There is potential for expansion of dispersed camping into unutilized and underutilized meadows. Based on the density of campsites in the heavier utilized areas, we expect new meadow campsites to develop at the rate of about –

- 1 campsite per meadow for meadows less than 2 acre.
- 1 campsite per 2 acres for larger meadows.

Table 3. Potential for additional campsites to be developed in meadows.

	Total Meadows	w/in 100 ft	w/in 300 ft
Number of meadows	36	25	35
Acres	253	52	125
Number of meadows with campsites	15	15	15
Number of meadows < 2 acres		15	19
Potential additional campsites ³		9	14
Number of meadows > 2 acres		10	15
Potential additional campsites		5	13

Spur Roads

Spur roads that are not closed and end at a water feature are rare. Most have already been developed. No additional spur roads that are likely candidates were identified.

³ Don't already have a campsite, and have no other known barrier to camping (e.g., blocked by rocks).

Landings

Many landings have not been used as campsites – while they are flat they are generally not close to water. Continued land management activities would create landings, some of which may be utilized for dispersed camping.

EFFECTS ON RECREATION

The primary difference would be the number of campsites available and the potential to develop new campsites. Currently, the planning area has about 250 identified campsites. The majority of campsites are located along roads where this project proposes to limit dispersed camping. About 23% of the existing campsites are located along roads where dispersed camping would remain “unrestricted”. Thirty-nine campsites are located within the 100-foot zone; an additional 10 are located in the 100- to 300-foot zone.

If vehicles were limited to a distance of 100 feet from open roads for the purposes of dispersed camping, 10 identified campsites would no longer be vehicle accessible (4% of the existing campsites) and the potential to develop new sites would be limited as shown in table 3.

EFFECTS ON WATER AND FISH

Most campsites with a high potential to adversely impact water quality, stream conditions and fish habitat are located in the areas where campsites would be designated. The designation of these sites greatly reduces the impact of dispersed camping on water quality, stream conditions and fish habitat.

The following table displays the numbers of existing campsites within Riparian Habitat Conservation Areas (RHCA).

Table 4. NFS Lands adjacent to open unrestricted roads, slopes suitable for dispersed camping and reasonable access from the roadway, within Riparian Habitat Conservation Areas

	100-foot zone w/in RHCA	300-foot zone w/in RHCA
Existing Conditions		
Existing campsites in areas where campsites would not be designated.	44	76
Potential for new campsite development		
Open Roads, unrestricted camping, suitable slopes, and reasonable access	460 acres	1,440 acres
- and in a meadow	14 acres	47 acres

The proposed action (Alternative 3) would prohibit travel off of selected roadways. Along those roadways dispersed campsites would be designated, and the routes to the campsites would be designated. This is an analysis of campsites and the potential to develop new campsites in the zone between 100 feet and 300 feet of open roads where campsites WOULD NOT be designated.

The hydrologist and fish biologist reviewed the meadows adjacent to open roads that have the potential for dispersed site development where the limitation for off road travel for access to camping is reduced to 100 feet instead of the proposed action for 300 feet. There are 35 meadows within the RHCA that are covered under the proposed action within 300 feet access to campsites. Under the 100-foot proposal, 7 meadows drop out. Of these meadows, one is Krumm Meadow, which is fish-bearing, 3 are wetlands (one having an exclusion fence), one on Leslie Creek, one on a tributary of Leslie Creek, and one on a tributary of Drummond Creek. Regardless of the 100 vs. 300 ft designation, there is a monitoring plan in place to assess

and evaluate all meadows for unauthorized use. If negative resource impacts to the meadows occur, the restoration crew will implement measures to restore the site and prevent further impacts.

The hydrologist and fish biologist reviewed the campsites adjacent to open undesignated roads. There are 76 campsites within the RHCA that are covered under the proposed action that allows 300 feet access to campsites. Restricting access to 100 feet would result in 44 sites not being accessible. Regardless of the 100 vs. 300 ft designation, there is a monitoring plan in place to assess all campsites for negative resource impacts. If negative resource impacts to the campsites occur, the restoration crew will restore the site and the meadow will be evaluated and measures implemented to prevent further impacts.

EFFECTS ON SOIL QUALITY

The primary impact to soil quality would be the development of campsites in meadows. Allowing vehicles to go up to 100 feet for the purposes of dispersed camping may impact up to 1 acre. Allowing vehicles to go up to 300 feet for the purposes of dispersed camping may impact up to 3 acres. The use of existing roads and landings for dispersed camping would have no impact on soil productivity. New campsites would have the potential to erode, but the location and details of any new campsites would be speculative.

EFFECTS ON WILDLIFE

Reduction in the total area potentially affected by dispersed camping and the associated vehicle use would reduce the potential for disturbance and habitat degradation. Opportunities to restore or enhance habitat conditions through other projects would be improved. The potential effects of reducing the potential roadside impact zone from 300 feet to 100 feet are as follows:

1. Reduced potential for disturbance and/or displacement of many wildlife species from suitable habitat(s) during critical time periods that could affect the ability of individual animals to reproduce or survive.
2. Reduced potential for damage to important habitats or habitat components that are essential for some species, potentially affecting the presence of the species at certain sites and/or the overall distribution of the species on the Forest. Conversely, the potential for the Forest to repair existing damage and/or restore desirable site conditions increases. The Forest's ability to meet desired future conditions, Forest Plan objectives and/or and existing standards is improved.

EFFECTS ON WEEDS

Noxious weeds currently present in the project area are spread by a variety of vectors including people, domestic livestock, wildlife, and vehicles. Allowing vehicles to travel off-road up to 300 feet may slightly increase the spread of noxious weed populations. In areas that receive light or occasional use the existing vegetation should help prevent the establishment or spread of noxious weeds. Areas that receive higher use resulting in decreased vegetative cover will be more susceptible to invasion by noxious weeds.

EFFECTS ON SENSITIVE PLANTS

This analysis of campsites and the potential to develop new ones in areas where they would not be designated (100 to 300 feet of open roads) would have no effect on sensitive plants because the Colville National Forest MVUM of 2008 already allows access to dispersed campsites within 300 feet of designated routes. Sensitive plants documented within 300 feet of designated roads in the project area include: crenulate moonwort (*Botrychium crenulatum*) and bulb-bearing water hemlock (*Cicuta bulbifera*), bulb-

bearing water hemlock (*Cicuta bulbifera*). New campsites in meadows are potential habitat for sensitive plants. Crested shield-fern (*Dryopteris cristata*) and blue-eyed grass (*Sisyrinchium septentrionale*) occur in meadows adjacent the 300-foot designated routes. In addition, another 12 sensitive plants could occur in this analysis area: Nuttall's pussy-toes (*Antennaria parvifolia*), upswept moonwort (*Botrychium ascendens*), western moonwort (*B. hesperium*), skinny moonwort (*B. lineare*), two-spiked moonwort (*B. paradoxum*), stalked moonwort (*B. pedunculosum*), water avens (*Geum rivale*), treelike clubmoss (*Lycopodium dendroideum*), adder's tongue (*Ophioglossum pusillum*), black snake-root (*Sanicula marilandica*), strict blue-eyed grass (*Sisyrinchium montanum*), and kidney-leaved violet (*Viola renifolia*). If the width of the designated routes were decreased from 300 feet to 100 feet, the risk to sensitive plants would be less because there would be less potential habitat.

EFFECTS ON HERITAGE RESOURCES

Impacts to heritage resources would be qualitatively less for dispersed camping within the 100 foot buffer as opposed to the 300 foot buffer. Potential effects to cultural sites would be slightly more limited with a restriction of 100 feet, but in either case the restriction of dispersed camping within any buffer will be better than current practices.